Roy Luo

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TECHNICAL SKILLS

Languages: Python, R, SQL, C, Bash
Platforms and Tools: Microsoft PowerBI, SQL Server, Git
Libraries: pandas, NumPy, Matplotlib, Plotly, Selenium, tidyverse, ggplot2

EXPERIENCE

SimCorp Dimension Analyst Intern

Precision Insight Consulting *Markham, ON*

- Utilized the Data Format System (DFS) to import and load equity/bond trades, performing mapping to SCD transaction codes and applying formulas to ascertain instrument types for validation.
- Configured and managed batch jobs for the extraction of definitions from the transaction table, optimizing data handling and processing efficiency.
- Constructed a reference file documenting daily CAD/USD settlement, enhancing data accessibility and accuracy for analytical purposes.
- Effectively managed, reviewed, and allocated Jira tickets, ensuring seamless coordination and timely resolution of tasks.

PROJECTS

League of Legends Jungle Tracker | *Python, pandas, Plotly*

- Developed a Python application with a Streamlit UI to retrieve data from a REST API based on user input.
- Utilized pandas to process data, generating interactive Plotly visualizations on-demand.
- Implemented advanced algorithms to identify specific players in ongoing matches and extract targeted data.
- Incorporated robust error handling with the requests library and validated user inputs effectively.
- Visualized players' in-game positions at defined time intervals in historical matches.

Live Crypto Orderbook Dashboard | *R, SQL Server, PowerBI*

- Developed an R script to parse and reformat live orderbook data from Coinbase's websocket feed.
- Uploaded and stored data in SQL Server, integrated it into PowerBI using DirectQuery, and created interactive dashboard charts.
- Engineered an efficient data processing pipeline for real-time updates and maintenance of a structured dataset for further analysis.
- Maintained a near real-time cryptocurrency orderbook dashboard, displaying critical metrics like mid-market rate, order prices, market depth, and bid-ask spread.

UFO Sighting Data Analysis | *R, tidyverse, ggplot2*

- Processed and transformed Kaggle datasets using R's data science libraries, ensuring high data quality.
- Applied advanced data wrangling techniques, focusing on time series and geographic data, to prepare the data for analysis.
- Conducted thorough exploratory data analysis, uncovering significant relationships and extracting actionable insights.
- Effectively communicated findings using engaging ggplot2 visualizations, enhancing data-driven storytelling.
- Analyzed UFO sighting data to shed light on the lack of conclusive evidence regarding the existence of extraterrestrial life.

EDUCATION

University of Waterloo

Honours Mathematics, Coop *September 2023 − April 2027*

McMaster University

Mathematics and Statistics - GPA: 3.96/4.00 *September 2022 − August 2023*

ADDITIONAL INFORMATION

Certificates: Google Data Analytics
Languages: English, Mandarin, French